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SCHOOL AND SOCIETY

EDITED BY J. McKEEN CATTELL

Volume XXV SATURDAY, JUNE 4, 1927 Number 649

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SCHOOL AND SOCIETY

Volume XXV SATURDAY, JUNE 4, 1927 Number 649

CHARLES W. ELIOT: 1834–1926[1]

PRESIDENT ELIOT was an ardent and a consistent advocate of *freedom* as contrasted with hampering and unnecessary restrictions, first of all in education, but also in all the other relations of life. In what follows we shall have occasion to note this repeatedly. He demanded freedom for the pupil in order that the pupil's development might proceed, under guidance, in accordance with the pupil's awakened native tastes and capacities; and he demanded freedom for the teacher to so plan the pupil's opportunities for spiritual and physical growth that the pupil should feel the joy of achievement from the beginning to the end of his educational career.

It is impossible, of course, to present an adequate brief account of President Eliot's personality and remarkable achievements; but this paper is intended, so far as it goes, to be a tribute to President Eliot—a recognition of his half century of leadership, both in education and in public opinion on other matters of general interest—the latter especially after his retirement from the presidency of Harvard University, in 1909.

It would be interesting to present many significant details of President Eliot's education and career prior to his election to the presidency of Harvard College in 1869, when he was but thirty-five years old. But I restrict myself to the indispensable minimum. His ancestry and environment were of the best; he prepared for college at the Boston Latin School, which at that time limited its curriculum almost entirely to Latin, Greek and mathematics (it recognized neither science nor modern languages); and he graduated from Harvard College, at the age of nineteen, in 1853.

In his student days Harvard was a provincial college conservatively administered. Nearly all the studies required for a degree were prescribed; consequently most of the work done was elementary. The class work consisted of recitations from prescribed text-books. Undergraduates were not admitted to the laboratories, nor were they required to use the library; indeed, almost prohibitive restrictions were imposed on the use of the library by undergraduates. A special privilege was accorded to young Eliot in that he was admitted to the private (chemistry) laboratory of Professor Josiah P. Cook; and he availed himself of the option to study mathematics instead of Greek during his last two college years. He himself says, "The subjects in which I got beyond the elements while in college were chemistry and mathematics; but I also took pains with all the exercises in English composition that were required of my class." (Incidentally, all who have ever heard President Eliot speak or who have read what he has written will testify to the remarkable result of this habit of taking pains with English composition. He was a master of concise and lucid English expression, whether oral or written.) When he graduated, he had no idea what calling he should choose. He spent the vacation in travel. Returning to Boston, he supplemented his college education by studying

[1] Prepared at the request of the editor of SCHOOL AND SOCIETY, as a memorial to President Eliot. With minor changes, delivered, also as a memorial to President Eliot, at the annual meeting of the Progressive Education Association, on April 28, 1927, the association having asked the writer for such an address.

French and German and by studying bookkeeping in a "business college."

In the late winter of 1853–4 he was appointed a tutor in mathematics in Harvard College and began almost immediately to introduce improvements in the instruction in his subject. He strove to make the teaching of mathematics as concrete as possible. One example of his endeavor was a voluntary class in surveying made up of students studying trigonometry. This class made a survey of the then college yard, and a map "with every building, path, and tree delineated thereon—a map which is preserved in the College library."

In 1858 Mr. Eliot was promoted to be assistant professor of chemistry and mathematics for five years; and within two years he was directed by the corporation to take charge of the chemistry laboratory of the Lawrence Scientific School. This laboratory had been created by Professor Hosford, who had held the Rumford professorship (of the application of science to the useful arts) since 1847. When Professor Hosford resigned in 1863, Professor Eliot, having completed his term of five years as assistant professor, naturally aspired to this professorship. But the corporation appointed, says Mr. Eliot, "the distinguished chemist, Dr. Wolcott Gibbs. Under these circumstances, I lost in the summer of 1863 all connection with Harvard University, since the corporation were unable to provide me with any position I was willing to accept."

In the late spring of that same year he felt obliged to decline a commission as colonel "or more probably Lieutenant Colonel" which had been offered to him by Governor Andrew (Massachusetts) through James Russell Lowell. His parents had lost or rather had given up their entire fortune through the self-sacrificing act of his father who, though not legally responsible, had given his means to the business firm in which he was a silent partner when that firm failed. By 1863 his father was dead, and young Eliot, the only son of his widowed mother, was also the only available man in the family of his wife's mother, who was also a widow. Mr. Eliot's decision not to enter the army caused him much distress: "For," he says, "I felt strongly the call of the country—a call which many of my friends had eagerly obeyed. It was a comfort to me that Mr. Lowell approved my decision."

He had now definitely decided to devote himself to the profession of education. Accordingly, with his wife and his two children, he spent the next two years in England, France and Germany, where he studied educational institutions the greater part of the time, and pursued his studies in chemistry and technology. He also "traveled moderately during the summers." While in Rome, in 1865, he was offered the superintendency of the Merrimac Mills in Lowell, Massachusetts, at a salary of five thousand dollars and the "occupancy" of an excellent house. The duties of the offered position were congenial to Mr. Eliot, and the salary and house rent constituted a higher emolument than the salary of any college professor at that time. But to accept this flattering offer would be to abandon the profession for which he had been preparing himself "for eleven years." So he declined the offer. A few weeks later he was offered a professorship of chemistry in the Massachusetts Institute of Technology (which first opened its doors in September, 1865) at a salary of two thousand dollars; and that offer he gladly accepted. During the next four years his whole time was devoted to professional work at the institute. Together with his friend and colleague, Professor Frank H. Storer, he published two text-books in which "a method of experimenting by the student himself replaced the former method of memorizing rules and descriptions of principles and processes. This was dis-

tinctly pioneer work in the teaching of chemistry." Those Eliot and Storer chemistries are well known to the science teachers of the decades that immediately followed their publication.

In March, 1869, while Professor Eliot was attending a meeting of the Harvard Board of Overseers (he had been elected a member of that board by the alumni at the preceding commencement), a member of the corporation called him aside and told him that the corporation desired to elect him president of Harvard College. Soon after, that desire was consummated, and his election was sent to the Board of Overseers for their consent. "Thereupon a vigorous discussion arose in that Board. A few months before I had published in the *Atlantic Monthly* two articles entitled 'The New Education'; so that my opinions about education, which were at that time rather novel in eastern Massachusetts, were accessible in print to all the members of the Board." But the corporation persisted in their choice and the overseers finally capitulated, Professor Eliot's election being approved by a vote of sixteen to eight.

Professor Eliot had not taken much interest in the discussion of himself while his election was pending. His (first) wife died after an illness that lasted three years, just four days after the meeting of the Board of Overseers to which reference has been made, and he sought relief from the sorrow at home by increased devotion to his labors at the institute. But as soon as his election was completed, he began at once to study the functions of the president and the needs of the university. He did not attend the commencement of that year, owing to the recent death of Mrs. Eliot. "The name of the new President was not mentioned on Commencement Day until the very close of the Alumni Dinner, when Mr. Joseph H. Choate of New York said a few friendly words about him which were well received by the alumni, and were very grateful to the untried and absent President."[2]

It is not possible in this short paper to review the *Atlantic Monthly* articles on "The New Education," referred to above, which were doubtless the chief cause of the opposition to the election of Professor Eliot to the presidency of Harvard College. It must be noted, however, that those articles suggested the necessity of important changes in the established system of secondary and higher education—a deepening and extension of educational opportunity in both fields, and professional training of real university grade. It is not difficult to understand that the conventional-minded academic world, always prone to be satisfied with things as they are, would be apprehensive concerning the elevation to the presidency of Harvard College of a young man of pronounced views concerning the inadequacy and partly obsolete character of the established system of secondary and higher education. His election portended changes, reorganization, readjustment and expansion; possibly the loss of some things of high traditional value. And the non-academic world bred in the traditions of the existing order, to a greater or less extent, followed the lead of the professors. When it transpired that the opposition to Professor Eliot did not prevent his election, the apprehensions of those who had opposed his election were naturally augmented. His inaugural address was awaited with eagerness, because it was to be expected that it would state just what educational and administrative measures this (in the minds of many persons) revolutionary young president advocated, and that he would devote himself with characteristic energy to put them into operation.

[2] Quotations in the foregoing paragraphs are from President Eliot's brief autobiography written for the Harvard Class of 1853.

That inaugural address was delivered on October 19, 1869. As was anticipated, it set forth the president's views vigorously and unequivocally. But the opening words of that address must have been and indeed were a satisfaction to his supporters; and, at the same time, they tended to calm those opponents who looked for a ruthless break with tradition. Those opening words—the keynote of the whole address—were: "The endless controversies whether languages, philosophy, mathematics, or science supplies the best mental training, whether general education should be chiefly literary or chiefly scientific, have no practical lesson for us today. This University recognizes no real antagonism between literature and science, and consents to no such narrow alternatives as mathematics or classics, science or metaphysics. We would have them all and at their best."

This inaugural address has justly been called an amazing document. It was not merely a formal address by a new president of the university. It was a well-considered exposition of educational and administrative principles and an equally careful and deliberate declaration of the president's intention to promote actively the application of those principles to the development of the university. Even a cursory examination of his annual reports shows how conscientiously he adhered to those principles and policies throughout the forty years of his administration. That would have been calamitous if those principles had been unsound; but they were sound; and their soundness became increasingly apparent as time passed. Because those principles were, and are, sound, and because his ardent devotion to them never flagged, the remarkable development of the university from a provincial New England college and two or three inadequate professional schools maintaining standards far below the standards of corresponding European institutions into a cosmopolitan university worthy of recognition, the world over, followed inevitably.

Of course, this great achievement was not realized without much controversy. Indeed the first half of President Eliot's administration was characterized by controversy. But, gradually, the essential soundness of his views on nearly all that he contended for, his patience and wonderful persuasiveness won a sufficient majority of adherents both within and without the university to effect the results at which he aimed. And the example of Harvard University under his leadership became a stimulating influence for the upbuilding of higher education throughout the United States.

But the influence of his leadership extended beyond higher education into the field of secondary education and of elementary education as well.

Early in the inaugural address, he says:

> The best result of the discussion which has raged so long about the relative educational value of the main branches of learning is the conviction that there is room for them all in a sound scheme, provided that right methods of teaching are employed. It is not because of the limitation of their faculties that boys come to college, having mastered nothing but a few score of pages of Latin and Greek, and the bare elements of mathematics. Not nature, but an unintelligent system of instruction from the primary school through the college is responsible for the fact that many college graduates have so inadequate a conception of what is meant by scientific observation, reasoning, and proof. It is possible for the young to get actual experience of all the principal methods of thought. There is a method of thought in language, and a method in mathematics, and another of natural and physical science, and another of faith. With wise direction, even a child would drink at all these springs.

And a little farther on, he says:

> Such inducements as the College can offer for enriching and enlarging the course of study pursued in the preparatory schools, the Faculty has recently decided to give. . . . At the same time, the University will take to heart the counsel which it gives to others.

However, it is not only the greater freedom to secure an education represented by

enlargement of the scope and needed improvement in methods of teaching in colleges and schools that President Eliot pleaded for. He was equally insistent on freedom as a necessary factor in the moral development of the young. In the same inaugural address, he says:

> The petty discipline of colleges attracts altogether too much attention from both friends and foes. . . . The best way to put boyishness to shame is to foster scholarship and manliness. . . . in spite of the familiar picture of the moral dangers which environ the student, there is no place so safe as a good college during the critical passage from boyhood to manhood. The security of the college commonwealth is largely due to its exuberant activity. Its scholarly tastes and habits, its eager friendships and frank discussions of character and of deep political and religious questions, all are safeguards against sloth, vulgarity, and depravity. Shams, conceit, and fictitious distinctions get no mercy. There is nothing but ridicule for bombast and sentimentality. Repression of genuine sentiment and emotion is indeed, in this college, carried too far.

And turning for a moment to the undergraduates in his audience, he says:

> When you feel a true admiration for a teacher, a glow of enthusiasm for work, a thrill of pleasure for some excellent saying, give it expression. Do not be ashamed of these emotions. . . . If ever in after years you come to smile at the youthful reverence you paid, believe me it will be with tears in your eyes.

But the most conspicuous illustration of President Eliot's ardent belief in freedom as the best condition for making most effective the educational opportunities of school and college was his unswerving devotion to the elective system. As student and teacher he had felt keenly the disadvantages of a prescribed curriculum—as student, in the undue restriction of the scope of the instruction and its consequent limitation to the elementary phases of the branches studied; and as teacher, the deadening effect of large numbers of students pursuing, unwillingly and unprofitably, studies in which they had no interest and little or no capacity. So he early resolved by means of the elective system to give to Harvard students the freedom to choose the studies that appealed to them, and then to hold them strictly to account for their use of this freedom; and at the same time to enable earnest students to proceed beyond the elements in the studies of their choice. He says:

> In education, the individual traits of different minds have not been sufficiently attended to. Through the period of boyhood the school studies should be representative; all the main fields of knowledge should be entered upon. But the young man of nineteen or twenty ought to know what he likes best and is most fitted for. . . . When the revelation of his own peculiar taste and capacity comes to a young man, let him reverently give it welcome, thank God, and take courage. . . . For the individual, concentration, and the highest development of his own peculiar faculty is the only prudence. But for the State, it is variety not uniformity of product, which is needful. These principles are the justification of the system of elective studies which has been gradually developed in this College during the past forty years.

And he goes on to say that while "at present the Freshman year is the only one in which there is a fixed course prescribed for all," and the subsequent "liberty of choice of subject is wide," it yet has very rigid limits. And he concludes his discussion of the topic with the significant words, "The College therefore proposes to persevere in its efforts to establish, improve, and extend the elective system."

He was successful in thus improving and extending the elective system to the great profit not only of Harvard University but to higher and secondary education throughout the country. It is not out of place here to point out that his belief in the elective system was subjected by him to objective verification. In a chapter of his "University Administration" President Eliot says:

> More than twenty years ago [he was writing in 1908] three experts, all familiar with the relations and sequences of the courses of instruction given during the period of 1881 to 1885, carefully exam-

ined the entire series of three hundred and fifty choices made by the students of that time, being the entire classes of 1884 and 1885 in Harvard College. They endeavored, independently of each other, to pick out those selections which, in their judgment, lacked coherency or consecutiveness. These three agreed upon only six cases of incoherence—three in the class of '84, and three in the class of '85. Two of the three experts—but not the same two in every instance—agreed on twenty-one cases in the two classes. When three experts cannot agree that a given selection of studies lacks coherency, it may well be that knowledge of the circumstances and conditions under which the individual selections were made would fully explain or indeed justify it.

Changes made in the administration of the elective system since President Eliot's retirement—in my judgment, arbitrary and artificial in respect to the composition of groups from which a student must select his studies both for "concentration" and "distribution," but especially for concentration—have yet to prove any real gains to education over the almost free election of studies which was developed and prevailed during President Eliot's term of office.

The freedom which he insisted upon for the students he accorded the professors. Throughout his administration, and under his leadership, the faculty became a clearing house for educational opinions; every man feeling that his real opinion was desired, and not conformity to the president's views; knowing also that opposition to the president played no part in his tenure or promotion: that conscientious and effective performance of his duty to the university was the determining factor in his career.

During his first year in the presidency, an assistant professor who had vigorously opposed President Eliot's election came up for promotion to a full professorship. This assistant professor was an able man, and, on President Eliot's initiative, he was promoted to the full professorship to which he aspired. President Eliot's fairness never permitted him to depart from the highest standards of justice.

This characteristic was inborn; but it was also a consciously entertained purpose. On the occasion of his twenty-fifth anniversary as president, at a meeting of the faculty of arts and science the faculty tendered him an appreciative minute. In his reply, he said, among other things, that there was one feature of the minute that gave him special pleasure; namely, the fact that the minute commended his fairness; and he added that it was probably impossible for members of the faculty to realize how difficult it was for the president—"a man of somewhat ardent temperament"—to maintain an attitude of fairness in all his relations with individuals, official and unofficial. That he did so under even the most trying circumstances was not only one of the sources of his tremendous influence as a leader, but an outstanding cause of the great satisfaction his associates felt in his leadership—and it was this last that the faculty's minute had brought into prominence.

Another of his outstanding characteristics was courage. When by observation and study he had arrived at a conviction, he was steadfast in the endeavor to put it into practice, no matter how formidable the opposition he encountered. This courage he showed at the outset of his presidency—and even before, as witness the *Atlantic Monthly* articles on "The New Education," published just before his accession to the presidency. As president, he sought, as has been stated, to put into effect continuously the policies and principles he had advocated in his inaugural address. The steady development of freedom for the student to choose his studies—of the elective system—his endeavor to promote the moral development of the student in an atmosphere of greater freedom by substituting for petty restraints a sense of personal responsibility and steady accountability for the proper use of such freedom—these measures required the constant exercise of courage in the face of traditional conservatism con-

cerning the ability of students to choose their own studies and to regulate their conduct by self-direction under guidance rather than by external authority; for his motives were often misconstrued and his views subjected to hostile criticism. The extent of the opposition to these innovations in the affairs of the university it is impossible at this time to fully realize. The enlargement of the scope of the education offered in Harvard College, closely associated with his advocacy of the elective system, has been noted. Here, again, the opposition to the president's views it is difficult to understand to-day. When he said in 1884, "To the list of studies which the sixteenth century called liberal, I would therefore add, as studies of equal rank, English, French, German, history, political economy, and natural science, not one of which can be said to have existed in mature form when the definition of liberal education which is still in force was laid down," the conservatives of the academic world were up in arms. But, as we have seen, he had advocated these views long before 1884, and he had to advocate them for a long time afterward before the academic world within and without Harvard University where these views had already by 1884 secured many adherents, accepted them largely or wholly as it has to-day.

His insistence on needed reforms in the professional schools as well as in Harvard College called for a prolonged exercise of courage. When he became president of Harvard University those schools maintained low standards of admission and graduation, and were virtually independent of university control. This untoward situation the young president attacked almost as soon as he became president. The faculties of those schools had not been accustomed to have their policies scrutinized by the president of the university; still less were they accustomed to suggestions emanating from him. President Eliot, however, both scrutinized and suggested. That took courage. Gradually he won the cooperation of the faculties and of others in promoting the reforms he urged. Not only that, but under his leadership other professional schools were added to the university, or foundations were laid on which such schools were subsequently built; and all of them now maintain standards of admission and graduation worthy of the high purposes for which they exist.

Another example of his courage—and his vision—was his initiative in founding the study of education within the faculty of arts and sciences at Harvard University. That was in 1891; and required both vision and courage because, at that time, education as a university study was looked upon with strong disfavor—not to say with contempt—by most university faculties in the country. How greatly the new department of study was distrusted by the Harvard faculty was evidenced by the fact that none of the three courses in education offered during the first year were permitted to count toward any degree. This handicap was partly removed during the second year, and wholly during the third year of the department's existence. The example of Harvard in establishing the university study of education undoubtedly had a strong influence in inducing other endowed colleges and universities to do likewise. To-day, very few self-respecting colleges and universities fail to offer substantial courses in the study of education. At Harvard, the present graduate school of education is the outcome of President Eliot's vision and courage in 1891.[3]

[3] Another conspicuous example of President Eliot's courage. In 1908, two members of the Harvard crews that were to race with Yale crews were placed on probation, and this automatically removed the two men from the crews not long before the races were to take place. There was great excitement, and not a little disapproval of the action of the college authorities on the part of many alumni—some of them being very influen-

President Eliot was a very active member of local and national education associations. Into these associations he carried his convictions and his courageous advocacy of them. Though at first regarded with distrust, and on at least one occasion hissed for his outspoken criticisms of defects in the policies and practices of contemporary education for which the teachers he was addressing were primarily responsible, he gradually came to be regarded by teachers and school officers of every grade as one of their most helpful coworkers; and for nearly fifty years he was an outstanding educational leader in the country.

His participation in the activities of the New England Association of Colleges and Secondary Schools was influential in bringing order out of the chaos of college admission requirements during the 1880s and 1890s and in enlarging the scope and flexibility of the instruction in secondary schools; and he was even more influential when as chairman of the celebrated committee of ten of the National Education Association, he organized the comprehensive cooperative activities of that committee, and formulated the important and vastly helpful conclusions of the report of that committee. Again, it was his suggestion that caused the Association of Colleges and Secondary Schools of the Middle States and Maryland to develop the College Entrance Examination Board. He was thus the prime cause of setting uniform standards for college admission in the different studies accepted or required by colleges throughout the country.

The foregoing illustrations are only a few instances of President Eliot's vision and courage in promoting educational reforms. A more detailed consideration of his educational achievements can not be given here. But what has been given is enough to explain why he is held in such high esteem by the educational world. It should be noted, however, that he never relied on his impressive personality or his office to effect the results at which he aimed. He relied only on his conviction of the essential rightness of his aims, and on the persuasiveness with which he set them forth. No man was ever less moved by expediency or other extraneous considerations, or more indifferent to the effect on him personally of the measures which he believed were for the general good.

But it is well known that President Eliot's influence as "general counsellor" to his fellow citizens quite outside the field of education was, especially after his retirement from the presidency, not less pronounced than his influence in education. It has been well said of him:

---

tial men. College presidents have been known to avoid a conflict with influential alumni at almost any cost to the college. How President Eliot met the issue can be seen from the two following telegrams, the first telegram coming from no less a person than the then president of the United States.

To President C. W. Eliot, Cambridge:

Is it not possible and would it not be more fitting and just to substitute another punishment for—and—if, as is stated, they merely took away a book which they were permitted to use in the library? It seems to us, and we feel sure, to the great body of graduates, that it is unfair and unnecessary to make others suffer for an offense of this kind for which some other punishment might surely be found.

THEODORE ROOSEVELT
ROBERT BACON

To President Theodore Roosevelt, White House, Washington:

Each man did a dishonorable thing. One violated in his private interest and in a crooked way a rule made in the common interest, while the other gave a false name and did not take subsequent opportunity to give his own. The least possible punishment was putting them on probation, but that drops them from the crews. A keen and sure sense of honor being the finest result of college life, I think the college and graduates should condemn effectively dishonorable conduct. The college should also teach that one must never do scurvy things in the supposed interest or for the pleasure of others.

CHARLES W. ELIOT

During the latter part of his presidency, and still more after he became *emeritus*, he was looked up to by hundreds of thousands of his fellow citizens as a guide not merely in educational matters, but in all the great questions that have agitated the public mind, political, industrial, social, and moral. Other leaders of opinion have come and gone, and some for a time have been more conspicuous; but it is impossible to name a figure who so continuously dominated our intellectual horizon for so long a period.[4]

President Eliot was a prolific writer. The list of his publications is a long one. And he continued to write and publish with undiminished vigor until he was past ninety years old. During the decade from his eightieth to his ninetieth year, he published no less than one hundred and ninety-two articles and books; and nearly all that he wrote showed that age had not diminished his extraordinary insight into the questions with which he dealt or his unique power to discuss them helpfully.

It is difficult, if not impossible, to summarize the characteristics and the achievements of such a man as President Eliot. He revealed himself daily to his professional associates and to the general public during his long and fruitful career; and always with the same passion for fairness, freedom and sanity in all the relations of life. He won his position of leadership—local and national—by virtue of those qualities, and by his penetrating insight, his tireless industry, his constructive imagination, his cogency and persuasiveness in reasoning and the fundamental soundness of his analysis of the manifold problems with which he dealt. Though reserved and dignified in bearing, he had a warm heart; and those who were admitted to his friendship did not fail to value the man as much as they respected and valued the leader. He was a severe critic, but he was just; and no one, whether the president agreed with him or not, ever left his presence without feeling that the president had given thorough and thoroughly objective consideration to the matter under consideration. He was patient as well as fair and courageous. What he saw he saw clearly; and his tireless persistence together with the essential rightness of his vision almost always brought about the practical realization of his views. That he was so often right in educational policy is evidenced by the fact that nearly all the reforms he advocated are now commonplaces of educational theory and practice. His leadership in public opinion concerning great national problems remains one of the outstanding facts of our national life.

President Eliot lived to be ninety-two years old. On March 20, 1924 (two years before his death), a remarkable gathering took place at Harvard University, to celebrate his ninetieth birthday. The celebration consisted of an academic meeting in Sanders Theatre, at which congratulatory messages were presented to President Eliot by appointed spokesmen from the president and fellows of Harvard College (the trustees of Harvard University), the board of overseers, the faculties of the university, the students of the university, many colleges and universities, learned societies, organizations of the alumni, including Harvard Clubs in this country and abroad, and finally from an honorary committee of citizens, representing the public. Of this committee, the president of the United States was chairman; vice-chairmen were the living ex-presidents of the United States, the governor of Massachusetts, and the premier of Canada; and the other members were leading citizens of the United States and Canada. It was a great outpouring of America's respect and affection for the man by representatives of all that's best and most valuable in American life—a tribute of grateful appreciation to him as the outstanding progressive leader in American education, and a memorable recognition of one of the greatest and most

[4] President Neilson, of Smith College.

public-spirited citizens our country has produced.

PAUL H. HANUS

HARVARD UNIVERSITY

RETIRING ALLOWANCES

IT seems desirable to call the attention of universities and colleges in general, and of the professors in these institutions, to the situation in regard to retiring allowances. This provision is recognized as indispensable to the stability of the teaching career. Emphasis may be directed to the immediate problems involved. The first of these refers to the methods of securing the funds; this involves no important principle. Whether the funds are contributed by an institution specifically devoted to this purpose, whether they are established by the university or by the professors, or compositely by contributions from several sources, the adequacy and security of the provision is alone important.

So far as the problem relates to university professors, the question of the age of retirement is a relatively vital one. Some years ago I made an extensive inquiry and received about two hundred replies from representative professors in leading institutions, most of whom were within ten or twelve years of the age of retirement, and consequently could be assumed to have given some thought to the subject. I regret that circumstances have prevented the publication of these replies. I still hope to make them available; perhaps there will be as much gained as lost in the delay, since the situation has had time to develop.

It became clear in interpreting the opinions of these professors that there were two distinct attitudes. In the one group, the plans and interests of the professors are clearly such that their own desire and intention is to remain in service as long as possible, and to delay the age of retirement until they feel that both in the interests of the institution and of their own personal welfare, it is better to withdraw. Consequently their attitude is largely an outlook toward an *old age* provision. Yet they also have in mind the possibility of incapacity, not in any complete sense, but sufficiently to make desirable a relief from responsibility.

The other group, and it is quite as large a one, takes just the opposite view. Their plans and purposes are such that the earliest possible age of retirement would meet their desires; and this group would be still larger were it not that so many are unable to accept a reduced income, if that is the condition of retirement. But retirement to this group does not mean an old age provision primarily. It means the opportunity to devote the *culminating years of their careers to a somewhat modified activity.*

The important conclusion to be drawn from this group of replies is that the provisions must be sufficiently elastic to meet *both* sets of conditions. This is not an unexpected conclusion. On the contrary it has been anticipated by provisions for retirement, in that they allow a certain elasticity and option in the matter. Such provision is incorporated in the original provisions of the Carnegie Foundation for the Advancement of Teaching. The first report of this foundation is a document of unusual significance for the history of education in this country. The principles there set forth are sound, and no experience since then has in any way invalidated them.

To meet the condition the provisions of the foundation presented an option. This option was not alone adequate—it was generous; and being from the outset in essence an alternative system, it amply provided for all the variety of situations that might arise. Let it be emphasized that the system thus established by the far-sighted policy of the founder and his advisers, consists essentially in an *option.* It is a *twofold* method of retirement, and its value can be appreciated and discussed only if that point is constantly kept in mind. To repeat then, it is definitely an *alternative* method of retirement. If the alternative is in any serious way modified, the entire system loses its specific advantage. It is a policy expressed as a *whole*; and no *part* of the provision attains complete significance without the other. The provision, it will be recalled, was a simple one. It offered retirement at *age sixty-five* OR *after twenty-five years* of service. The prospective candidate for retirement begins to qualify as an instructor. Even if we assume so mature an average age as thirty, it is clear that the twenty-five-year period of service was definitely

intended to make possible *early retirement*. It was then left to the professor to determine which of the two plans met with his interests and purposes. To prevent misunderstanding, let it be stated explicitly that there is no thought of proposing a restoration of the twenty-five-year service retirement; that seems impossible, as there are no funds for the purpose, except as some fortunate university may be able to provide them for special cases. The important point is that this provision in the original system not only called attention to but generously met a situation that exists and will always exist. A retiring system must be something more than an old-age provision. The advance in age is most serious as a condition of sharing in the allowance; and to compel a professor to teach until age 65 or lose all share in an allowance at any age is unwise, and, as brought about without due consideration of the professor's rights, unfair. The much too rapid change in the reduction of the allowance in terms of age, condensed within five years instead of being spread over fifteen or more, aggravates the situation as it now impends. Action must be prompt to be effective.

Naturally no retiring plan can be discussed without reference to the financial side. That such a plan is a costly one is obvious. The original Carnegie provision is, as indicated, a generous one, quite independently of the amount provided for retirement. Such a provision might well have had in mind that professors retiring at a somewhat early age would be in a condition to supplement the retiring allowance by other activity. The provision that the retiring allowance on the one basis would be *four fifths* of what it would be on the age retirement seemed in every way adjusted to the situation. Since the assurance was given that the funds were adequate for this purpose and that the retiring allowance on either alternative was to be regarded as part of the *compensation which the professor had earned* along with his salary, the provisions were certainly as adequate as could be expected. The policy was academically sound and financially generous.

The present occasion is not appropriate to discuss the wisdom of the changes or to criticize the manner in which they were brought about. The records of protest will be found elsewhere. It is familiar to those interested. The present discussion is confined to the importance of adjusting a retiring allowance to the actual needs of those affected by it. When accordingly the twenty-five-year allowance was withdrawn, it was not merely a withdrawal of a highly desirable privilege, but it completely upset the *entire perspective of the provision as a whole*. It was certainly not within the anticipation of the original draft of the scheme that a professor should be *required to teach* until age sixty-five under any and all circumstances except complete disability. From being in a position to determine his own career, he was suddenly made party to a contract which he had never contemplated. For the mutilation of the original plan involved the result that, no matter what happened, he would *lose his pension* unless he taught to age sixty-five. The subsequent changes not only reduced the *amount* of his retiring allowance, but *advanced the age* of "normal" retirement to seventy, thus making the present retiring allowance of the Foundation substantially an *old-age* provision.

The central purpose of the present discussion is to call attention to the important fact that under the present conditions the Carnegie retiring allowance can no longer be considered as pension or retiring allowance, but only as a *contribution* which the Foundation is able to make to the retirement of a professor. It is so completely inadequate, and especially under the rising cost of living, that the universities must be appealed to to do their part. If once it is understood that the Carnegie Foundation is prepared to make a contribution to the retiring allowance of professors, the situation will be realized. Whatever may be the set of circumstances which have brought about this change in its provisions, the reality must be faced. Reduced to its bare outline, the professor retiring at age sixty-five will receive one third of his salary and at age seventy one half of the salary. Neither is adequate, but what the universities should be asked to consider is the restoration of a possible earlier age of retirement with no serious loss of income, in order to maintain the wise policy abandoned through limitations of funds.

It must be borne in mind that at the time I

made the inquiry, no other age was regarded as standard except *sixty-five;* and there are many expressions in my replies to indicate that an earlier age was desirable. There were equally indications that a modified system would, in many cases, best meet the situation. As Professor Cattell suggested, it probably would be better in many cases to give a man half his time and all his salary than half his salary and all his time, as was proposed.

Since that time, also under the auspices of the Carnegie Foundation, a totally *different* provision is to be made for those who become eligible after 1915. It must be made clear that this provision is in *no sense a substitute* for the original purpose of the Foundation. It is merely an offer of the Foundation, in view of the fact that its original provision must be gradually abandoned, to make possible a provision to be established *by the professors and the universities concerned.* In view of its interest in the provision, the Foundation is prepared to supply the funds for the cost of *management* only, so that it may be done at a minimum cost. Admirable as this plan is, it is one that could easily have been established by the American Association of University Professors, who might well have applied to the Carnegie Corporation for a grant in aid of such purpose. What this saves is the expense of the administration and, though this is a modest contribution, it is certainly an acceptable one.

But for the immediate future the essential provision applies to those who must be dependent upon the altered conditions of the original grant. The contributory system has proceeded far enough to establish a desirable retiring standard, and there seems to be a fair agreement that this should be about *two thirds* of the (maximum) salary at time of retirement.[1]

What the universities are then called upon to do is to *contribute equally* with the professor towards this end, and many of them have met this condition. This is a *"University-and-Professor"* system of retirement, the Carnegie Foundation assuming only the expense and responsibility of administration. What thus seems established is the principle that the university shall contribute *half* of the retiring allowance. Whether the other half comes from the contribution of the professor or from the Carnegie Foundation will depend upon the age and period of service of the professors. Recognizing the inadequacy of the Carnegie provision, quite a number of institutions have agreed to supplement the allowance, some of them to restore the original Carnegie provisions or nearly so, others in somewhat different ways. Those institutions which had retiring provisions of their own have in certain instances retained that provision, merely accepting from the Carnegie Foundation a contribution towards their own retiring fund. Naturally the situation must be met in each case according to the ability of the institution, and in some cases according to legal possibilities. A state university may prefer to establish its own retiring allowance.

In view of all these circumstances, it becomes evident that prompt and effective action is necessary. If the universities associated with the Carnegie Foundation are willing to regard the professors on their faculties who come under these provisions as worthy of the same consideration that is now being given to the younger men, it would seem possible to propose that professors retiring under the Carnegie provision shall receive the amount contributed from that source, and that an equal amount shall be contributed by the universities themselves. This would solve the problem completely and as well for any age from sixty-five on. Though not usual, it has always been within the scope of the university to permit retirement at an early age, and such provisions have been made in exceptional cases.

[1] It may be noted that the experience of the Carnegie Foundation bears out this assumption. It appears that that average age of retirement is sixty-seven years, and the average period of service thirty-two years. Under the original provisions this would entitle the professor to about two thirds of his salary. These ages are slightly affected by the successive changes, making it likely that without such changes the age would have been somewhat earlier, and the age of qualification is unmistakably younger to-day. The results which I have not published would throw some light on the distribution of desired age of retirement. The average age is composed of somewhat different components.

Other considerations arise in regard to the length of service. When a part of the retiring allowance is provided by the university, this may introduce a complication when a professor has held positions in several universities. For cases in which substantially the whole of the service and a long one has been rendered to one institution, the application of the above principles would be more readily accepted. Practical measures might well limit this provision to those of long service. It may be added that professors who were well along in service at the time that the changes in the Carnegie allowance were made and who looked forward to retirement under the original provisions, were hardly in a position to provide for themselves in the years that remained. It would be natural to find that many of them had dismissed the question of retirement under the presumption that what had been promised would be fulfilled. It is upon this group who are contemplating retirement in the near future that the burden falls with peculiar hardship. It would be gratifying to find that the universities of the country are prepared to accept this situation and to make provisions for supplementing retiring allowances. That is the sole purpose of the present discussion, to call attention to the urgency of the situation, and to hope that the authorities of the universities concerned will be prepared to provide measures suitable to the situation. That a very considerable number have already done so, though not as adequately as part of this program suggests, is none the less a gratifying expression of interest and recognition of the importance of the provision.

JOSEPH JASTROW

EDUCATIONAL EVENTS

STATISTICS OF BRITISH UNIVERSITIES

THE usual annual statistics submitted by the British University Grants Committee to the Treasury are extended for the year 1925–26 by the inclusion of particulars relating to Oxford and Cambridge. These tables are based on returns made by the universities and colleges, which receive treasury grants and are published as an official volume.

According to an abstract in the London *Times* reference is made in the comments of the committee to the improved financial condition of many of the institutions following the increased grants made by the treasury on the committee's recommendation. They say on this subject: "The mere fact that for the academic year 1925–26 expenditure exceeded income at only 13 institutions, instead of at 24 as in the preceding year, is a very inadequate measure of the improvement which has taken place in the general financial position, since most of the 13 deficits were quite small, and were actually due, not to inability to meet the ordinary annual working expenses, but to the fact that during the year the institutions concerned met out of income a rather unusual amount of capital or other non-recurrent expenditure, which they no doubt felt justified in doing in view of their improved position and prospects."

The total income was £4,816,109, of which Cambridge received £453,329 and Oxford £419,-908. That of the London institutions amounted to £1,286,057. It is pointed out that, while government grants increased by £252,000, rising from 35.9 to 39.5 per cent. of the total income, grants from local authorities rose by £24,000, donations and subscriptions by about £12,000, and income from endowments by about £6,000. The chief increases in expenditure were: Salaries, £88,000; departmental and laboratory maintenance, £23,000; libraries and museums, £24,000; repairs, etc., of buildings, £38,000; capital expenditure met from income, £57,000. Debts were reduced during the year by more than £50,000.

The total number of full-time students was 41,606, or 41,443 if the students are deducted who attended two London medical schools which were not included in the returns for 1924–25. A comparison of this latter figure with the corresponding figure of 41,794 for 1924–25 shows a decrease of 351, made up of 205 men and 146 women students. The decrease of 205 in the men students was more than accounted for by the fall of the number of students assisted under the government scheme for the higher education of ex-service men from 263 to 17. The number of full-time students entering for the first time upon degree or diploma courses

was 12,270, being an advance of 166 on the 1924–25 figure. The number of full-time students from the Empire oversea was 2,400, a decrease of 60, but the foreign students increased from 1,351 to 1,406.

Dealing with subject groups, the committee note a continuance of the same general tendency as was disclosed by the figures for 1924–25. There was again a heavy fall in the medical group, and a smaller but still appreciable fall in the technological group, partly counterbalanced by a considerable rise in the arts group. In the medical group there was a decrease of 1,000 (735 men and 265 women—899 in medicine and 101 in dentistry), in the technological group a net decrease of 152 (a decrease of 157 men and an increase of five women), and in the arts group there was an increase of 869 (672 men and 197 women). In the pure science group the number of men increased by 85, while that of women decreased by 83. In the agricultural group the men decreased by 70, while the number of women remained unchanged.

The committee devotes a section of their introductory note to the position of the university and collegiate libraries of the country. They point out how very badly this position compares with that of similar libraries in the United States, and conclude with a plea that "among the many worthy objects to which intending benefactors to the universities might devote gifts, both large and small, the improvement and endowment of libraries is at the present time one of the most desirable and important."

A POSTGRADUATE SCHOOL IN NOVA SCOTIA

PROPOSALS to found a postgraduate school in Halifax in connection with the present merger of King's College with Dalhousie University have been put forward by the regents of Mount Allison University, the large United Church (formerly Methodist) College at Sackville, New Brunswick. The proposals made by this institution, according to *The Christian Science Monitor*, have reopened again the bigger problem of the federation of all the Maritime Province universities into one great institution in Halifax with Dalhousie University as the "mother" college.

The regents of Mount Allison in recent conference decided to lay before the Carnegie Foundation trustees a proposal whereby they will ask for aid in establishing at Halifax, in union with those of Dalhousie and King's, the research departments and schools of medicine, law, theology, dentistry, applied natural science, and the University of Mount Allison to carry on its present institution at Sackville, the work of the arts and pure science departments, with a maximum number of students fixed at four hundred.

The reason that the appeal is made to the Carnegie Foundation is because of the close, practical interest that body showed in the proposals to amalgamate the Maritime Province universities a few years ago, and when they offered to place at the disposal of the federated universities, for the purpose of carrying out the federation, a sum not less than $3,000,000. The idea of the scheme was to found in Halifax an institution such as the University of Toronto, or, as a better example, the University of Oxford, where various colleges are united under one head for the purpose of bearing the excessive and increasing cost of highly technical departments, while the colleges themselves do not lose the peculiar individuality which their church attachments give them.

With the exception of the Nova Scotia Technical College there is no government aid for higher education in Nova Scotia because of the fact that the colleges have grown out of the churches that established them and continued to support them since the day of their foundations when the province was very young. Nova Scotians, although but 500,000 in numbers, actually support by voluntary subscriptions no less than five degree-conferring universities. It was for the purpose of bringing these notable efforts for higher education into some federated whole, in a centralized place, whereby money now spent on overlapping of efforts, duplication of buildings and equipment, and staff might be utilized for such needed advancement, that the federation was proposed.

MESSAGE OF THE GOVERNOR TO THE GENERAL ASSEMBLY OF MISSOURI

GOVERNOR SAM A. BAKER in his biennial message to the General Assembly of Missouri on January 7, as reported in the *Missouri Alumnus*, proposed a separate educational fund

to be used only for supporting the public schools, the University of Missouri, the five state teachers colleges and other educational institutions; a ten per cent. tax on cigars and cigarettes; a ten per cent. tax on amusements, and diversion of the state inheritance tax into the fund would provide the revenue. Governor Baker said that this would stabilize education in the state, put it on a progressive basis and remove the necessity of the higher educational institutions from lobbying and scrambling at each session of the legislature. His message reads:

The estimated revenue for 1927–28, after deducting for the support of the public schools, will be approximately $14,500,000. I do not anticipate that the county collectors will be able to add much to this in back collections. They exhausted this source of revenue the past year. Nor can the auditors hope to do any better with the income tax collections than has already been accomplished. This brings us face to face with the age-old problem of securing sufficient revenue for operating expenses. I do not want to increase the property tax, nor the income tax—neither do you. I do not want to discourage the home-maker, nor the men or women who wish to add to their income legitimately from year to year. We must then find a means of increasing our revenue without adding to the burdens of those of our citizens already carrying a load heavier than they can bear.

For many years here in Missouri, there has been an increasing desire on the part of the people of our commonwealth to provide a more stable and adequate fund for our free public schools and our higher educational institutions supported by the state. There is no difference of opinion regarding the importance of education. Justice and equality are the corner-stones of our government and it is neither justice nor equality of rights to neglect to give to every boy and girl in the state, regardless of race, color or environment, at least the fundamentals of an education. It is the function of the state to provide for the education of its youth. Like the building of the highways it is not a matter to be left entirely to the local communities. To this end I strongly urge upon this general assembly the creation of a permanent school fund, fifty per cent. of which shall go to the public schools in addition to provisions already made by the constitution, and fifty per cent. to the higher educational institutions. The passage of this bill will solve the financial situation and the revenue will come from sources that will not be felt individually and the school districts may, if they so desire, lower their local tax rate for school purposes.

You men and women doubtless know that the Constitution of Missouri expressly provides that the University of Missouri shall be supported from the school fund and there is no school fund now. Let's create one by the following method:

All moneys which may hereafter be derived under any law now in force in this state, or which may hereafter be enacted, levying a tax upon inheritances shall be and are hereby made a part of the permanent school fund, to be apportioned and used in accordance with the provisions of this article; and no state tax shall hereafter be levied or imposed except for school purposes as in this article provided, upon any successions, legacies, or death duties of any character, or in any form, or anything in the nature of death duties.

There is hereby levied and shall be collected a privilege or license tax of ten per centum upon each ten cents or fraction of ten cents, of the price of admission to all shows, motion picture shows, theaters, operas, boxing matches, wrestling matches, baseball games and all other athletic or sporting exhibitions or performances hereafter given within this state, whether the same be given by or under the auspices of clubs or organizations, or given independently.

There is hereby levied upon all cigars, cigarettes, manufactured smoking tobacco, and all other kinds of manufactured tobacco, including snuff, hereafter sold within the state of Missouri, a privilege or license tax of ten per centum of the sale price of each cigar, each package of cigarettes, and a like rate of ten per centum of the sale price of chewing tobacco, smoking tobacco and every other kind of manufactured tobacco, including snuff; and said tax shall be collected from the person, firm or corporation making sale thereof in the first instance within this state.

APPROPRIATIONS FOR THE UNIVERSITY OF MICHIGAN

AT the final session of the Michigan Legislature on May 13, an appropriation was passed aggregating $4,150,000 for buildings and the present limitation of the income from the mill tax was removed. This means that the university will receive something over $4,600,000 annually for the next two years. Of the amount appropriated for buildings, $2,700,000 will come as the result of a special tax to be levied for the purpose of taking care of the building program of different state institutions. The balance, or

$1,450,000, will become available if and when the state has sufficient funds to care for the appropriations. All these measures are still to be approved by Governor Green.

The mill tax bill which maintains the former rate of six tenths of a mill removes the present limitation of the proceeds of the tax to $3,700,000, in operation for the past two years. It is expected the income from this source will be over $9,250,000 for the next two years. It was provided in the bill that the tax will only be operative on the basis of the last valuation before the session of the legislature. In other words no increase in valuation during the next two years will affect the income until after the next legislature meets.

The following table will show the details of the appropriations as passed by the legislature:

Appropriation under Tax Clause	Year ending June 30, 1928	Year ending June 30, 1929
Proceeds of mill tax with limitations removed	$4,600,000	$4,600,000
Land for Michigan Women's League Building	350,000	
Land for dormitories for students	125,000	125,000
One half cost of dormitories for students	375,000	375,000
Hospital ward for girls	250,000	
Model elementary school, including land	550,000	550,000
	$6,250,000	$5,650,000
Additional Appropriations without Tax Clause		
Heating, power and lighting system, equipment and extensions	100,000	100,000
Two additional stories on Nurses' Residence		350,000
South wing of James B. Angell Hall		900,000
Total for 1928	$6,350,000	
Total for 1929		$7,000,000

Only two items in the university's request were overlooked. The requests for $450,000 for a new Observatory Building and $75,000 for buildings and roads at the Biological Station at Douglas Lake were not approved. What was received from the state, however, amounts to the third largest appropriation for buildings ever received, while the aggregate income will be larger than ever before in the university's history. In 1921 the first appropriation under the enlarged program provided for $5,100,000 for building, but the income to be derived from the mill tax was over $3,000,000 less. The appropriations of the last four legislatures have been as follows:

Year	Buildings	Mill Tax (2 yrs.)	Total
1921	$5,100,000	$6,000,000	$11,100,000
1923	3,800,000	6,000,000	9,800,000
1925	1,800,000	7,400,000	9,200,000
1927	2,700,000	9,200,000 Est.	11,900,000

Thus it will be seen that, aside from the appropriation for buildings and the income from student fees which amounts to over a million dollars a year, the university in the mill tax alone has the equivalent of an endowment of $9,250,000 invested at five per cent.

THE NEW SUMMER SCHOOL OF NATURAL HISTORY IN THE ALLEGANY STATE PARK

THE teaching staff for the new school for the study of out-of-door natural history to be conducted this summer in the Allegany State Park, about seventy-five miles south of Buffalo, has recently been announced by Chauncey J. Hamlin, president of the Buffalo Society of Natural Sciences, and Dr. Charles C. Adams, director of the New York State Museum.

The director of the new school is Dr. Robert E. Coker, professor of zoology, University of North Carolina, who was formerly in charge of scientific work in the United States Bureau of Fisheries at Washington, and was director of the Fairport Biological Station of the Bureau at Fairport, Iowa. Dr. Coker, in addition to being director, will give a field course in zoology, giving special attention to aquatic animals which abound in the streams of the park. The dean of women is Mrs. R. E. Coker, who will look after the welfare of the women. The instruction in field geology and physical geography is given by Professor Allen C. Tester, of the University of Iowa and formerly of the

University of Wisconsin. The field botanical course will be given by Norman Taylor, botanist, of the Brooklyn Botanic Garden, and the field course on birds by Aretas A. Saunders, of Fairfield, Conn., a well-known ornithologist, who has spent much time studying and writing on the birds of the park. The nature-study instruction will be given by W. P. Alexander, of the Buffalo Society of Natural Sciences, who has devoted three seasons to conducting nature excursions in this park, and who is familiar with the region. The instruction covering park problems and park management will be given by Professor Henry R. Francis, of the department of recreational forestry of the New York State College of Forestry at Syracuse.

The announcement, giving full details of this out-of-door school, will be distributed upon application to the Registration Office, Allegany School of Natural History, at the New York State Museum, Albany, N. Y., where the Buffalo Society of Natural Sciences has a branch office.

The new school will aim to supplement regular school work and give practical field instruction to teachers of the public schools and leaders of all kinds of young peoples' organizations interested in outdoor life.

THE BUREAU OF EDUCATIONAL RECORDS AND GUIDANCE OF THE UNIVERSITY OF WISCONSIN

THE plan of President Glenn Frank, of the University of Wisconsin, for reorganization of the registrar's office at the university has been put into effect by the university regents. A bureau of educational records and guidance has been established with Frank O. Holt, now superintendent of schools at Janesville, as executive director, and Professor V. A. C. Henmon, now professor of education at Yale University, as scientific director.

President Frank has made the following statement:

> The bureau of educational records and guidance will go beyond the mere keeping of grades to the assembling of a wide range of information respecting the life and work of the students as the background and basis for the development of an effective service of counsel and guidance to the students—an end that is not always achieved by the prevailing system of advisers.
>
> The bureau likewise will be the assembly point for a richly detailed fund of information regarding the nature and results of the educational processes to which the students are subjected. This will provide facilities that will make it possible for the university to keep up a continuous study of the results of its enterprises and to take its own educational pulse.

Professor Holt, the executive director of the bureau, is a graduate of the university with the class of 1907. He received the degree, master of philosophy, from the university in 1925. He is well known among Wisconsin educators, having served as superintendent of schools in Janesville and Edgerton and as principal of the Sun Prairie High School.

Professor Henmon before going to Yale University last year had been a Wisconsin faculty member for sixteen years. Since 1916 he had been director of the School of Education. Besides serving as scientific director of the new bureau, Professor Henmon will be professor of psychology and chairman of a separate department of psychology, which will be withdrawn from its present connection with the department of philosophy.

JOSEPH SWAIN

JOSEPH SWAIN, ex-president of Swarthmore College, died at Swarthmore on May 19, 1927. Dr. Swain was one of the most esteemed of the "Old Guard" at Stanford, coming here at the beginning and holding the chair of mathematics from 1891 to 1893. From Stanford he went to the University of Indiana as president. After nine successful years at Bloomington, he became president of Swarthmore College, Pennsylvania, in 1902. After twenty years' service he retired on account of ill health and was succeeded by Dr. Frank A. Aydelotte, a student of his both in Indiana and at Swarthmore.

Dr. Swain was born on a farm at Pendleton, Indiana, in 1857. He graduated from Indiana University in 1883, becoming instructor in biology under Dr. Jordan; and later, after a period of study in Edinburgh, associate professor of mathematics. At the opening of Stanford in 1891 he was its professor of mathematics. As a teacher he was much appreciated by his students and colleagues.

Dr. Swain was a man of great physical

strength, six feet four inches in height and well proportioned, being the mainstay, as first base, of the faculty baseball team of the pioneer years.

In his early days as biologist, he was author of several important papers on fishes, some of them in cooperation with Dr. Jordan. He took an active part in the river explorations of the Fish Commission, especially those of Missouri and the Ozark region. He made two or three trips to Europe with groups of students. For many years he was one of the most active members of the National Education Association, of which he became president in 1913. He was also president of the National Council of Religious Education, and a trustee of the World Peace Foundation. He was a member of the Society of Friends and a life-long opponent to war. His wife, Frances Morgan Swain, survives him. He left no children.

DAVID STARR JORDAN

EDUCATIONAL NOTES AND NEWS

PRESIDENT J. C. BROWN, of the State Teachers College of St. Cloud, Minnesota, has accepted the presidency of the Northern Illinois State Teachers College at De Kalb, Illinois. President Brown was elected to the presidency at St. Cloud in 1916.

DR. RALPH DORN HETZEL will be inaugurated tenth president of the Pennsylvania State College during the commencement exercises on Tuesday morning, June 14.

THE Rockefeller Foundation has elected to membership on its board of trustees Herbert S. Hadley, chancellor of Washington University; Dr. David L. Edsall, dean of the Harvard Medical School, and Dr. George H. Whipple, dean of the school of medicine and dentistry of the University of Rochester.

THE University of Rome will confer the honorary degree of doctor of letters upon Dr. Nicholas Murray Butler, president of Columbia University, next month at a special sitting of the faculty of the university. The doctorate of political sciences will be conferred upon Professor John Lawrence Gehrig, of Columbia University.

THE honorary degree of doctor of laws was conferred by Wesleyan University upon President George D. Olds, of Amherst College, on May 27 at the convocation exercises in Memorial Chapel. President Olds was presented to President James L. McConaughy by Dean Frank W. Nicholson. The speakers of the occasion were President Olds and President Harry A. Garfield, of Williams College. In conferring the degree President McConaughy said: "George Daniel Olds, scholarly mathematician, for forty years a leader among your colleagues, inspiring teacher, affectionately called by your first name by many student generations at Amherst; demonstrator of the theorem that three-score years and ten need not mark the limits of a man's usefulness; president of a great college, near us geographically, like us in ideals, ahead of us in accomplishments."

THE degree of Litt.D. was conferred on Professor William Lyon Phelps, of Yale University, at the convocation exercises of McMaster University at which he delivered the address.

A DEGREE of doctor of Hebrew literature was conferred *in absentia* upon Professor George Foot Moore, of Harvard University, by the Jewish Institute of Religion at its second commencement exercises. The degree is said to be the first conferred on a non-Jew by a Jewish theological seminary. Professor Moore is author of a recent authoritative work on Judaism.

PROFESSOR HENRY SOLON GRAVES, provost of Yale University and dean of the School of Forestry, has resigned his position as provost and will in the future devote his entire time to his work in connection with the School of Forestry.

DR. E. D. KOHLSTEDT, president of Dakota Wesleyan University, at Mitchell, S. D., has resigned to accept the secretaryship of the Board of Home Missions and Church Extension of the Methodist Church, with offices in Philadelphia.

DR. U. S. SMITH, president of Iowa Wesleyan College, of Mount Pleasant, Iowa, handed his resignation to the board of trustees, who met in a special session on May 12. The resignation is to take effect July 10. Dr. Smith began his work as president in 1919.

DR. GEORGE B. EDWARDS, professor of international finance at New York University, will succeed Dr. Frederick B. Robinson as dean of

the school of business and head of the department of economics of the College of the City of New York, both posts having been left open when Dr. Robinson became president of the college.

DEAN RAYMOND A. KENT, of Northwestern University, has declined the invitation to become president of Wichita College, Kansas.

PRESIDENT EMERITUS GEORGE D. OLDS, of Amherst College, has been made honorary president for life of the class of 1927.

THE George Washington University Chapter of Pi Delta Epsilon, which also has a chapter in Lafayette College, recently passed the following resolution: *Whereas,* the resignation of Dr. William Mather Lewis, as president of George Washington University, has been accepted by the Board of Trustees, and *Whereas,* Dr. Lewis will soon leave to assume the presidency of Lafayette College at Easton, Pennsylvania, *Be it Resolved,* that the George Washington University Chapter of Pi Delta Epsilon, national honorary collegiate journalism fraternity, expresses its deepest regret at the loss of Dr. Lewis through his resignation, and *Be it Resolved,* that the best wishes of the George Washington University chapter shall go with him in his work.

PROFESSOR CARL F. HUTH, of the department of history of the University of Chicago, has been made dean of University College.

PROFESSOR JOHN KEATING has been appointed temporary president of Western State College at Gunnison, Colorado. He takes the place of Dr. Samuel Quigley, who has been granted a year's leave of absence.

DR. P. W. ZIMMERMAN, associate dean of the College of Agriculture at the University of Maryland, has tendered his resignation to President Raymond Allen Pearson to accept an appointment as plant physiologist of the Boyce Thompson Institute of Plant Research at Yonkers, N. Y. He will take up this work on September 1.

DR. W. B. NANCE, president of Soochow University, China, since 1922, has recently resigned the presidency, to take effect when a Chinese successor can be secured.

PROFESSOR H. STUART-JONES, Camden professor of ancient history in the University of Oxford, has been appointed principal of the University College of Wales; Professor C. A. Edwards, of the department of metallurgy and acting principal of University College, Swansea, has been elected principal, and Dr. William Thomas, of the University of Aberdeen, has been appointed principal of Denbighshire Technical Institute, Wrexham, North Wales.

DR. JOHN R. CLARK, of Teachers College, Columbia University, has been appointed associate professor of education in New York University, and Dr. Frederic M. Thrasher has been appointed professor of educational sociology.

THE following recent appointments in the school of education have been announced by the Pennsylvania State College: Dr. Charles C. Peters, of Ohio Wesleyan University, this year visiting professor in the University of Miami, professor of education and director of educational research; Mr. Leo R. DeLong, of Gettysburg College, formerly assistant superintendent of Ithaca, N. Y., public schools, assistant professor of education and assistant director of teacher training extension for eastern Pennsylvania; Miss Mary Jane Wyland, for twelve years city superintendent of Harlan, Iowa, schools and for five summers instructor in the Iowa State Teachers College, assistant professor of education in the extension staff, and Miss N. Maude Vedder, recently of the University of Nebraska and now a graduate student in the University of Chicago, assistant professor of home economics.

DR. ANTON DE HAAS, lecturer on foreign trade at Harvard University, has been appointed professor of foreign trade in the Harvard Graduate School of Business Administration.

WILLIAM JOHN COOPER, California state superintendent of public instruction, has submitted appointments to presidencies of State Teachers Colleges for the ensuing fiscal year as follows: Chico State Teachers College, C. M. Osenbaugh, incumbent. Fresno State Teachers College, succeeding C. L. McLane (resigning as of June 30, 1927), Frank W. Thomas, Ph.D., present professor of education and vice-president of the college. Humboldt State Teachers College, Ralph W. Swetman, incumbent. San

Diego State Teachers College, Edward L. Hardy, incumbent. San Francisco State Teachers College, Archibald B. Anderson, at present acting president. San José State Teachers College, Thomas W. MacQuarrie, Ph.D., now professor of education and director of the Metropolitan College, University of Southern California. Santa Barbara Teachers College, Clarence J. Phelps, incumbent.

CLAUDE M. HENRY, of Redfield, S. D., has been appointed a member of the Federal Board of Vocational Education by President Coolidge. He succeeds Calvin F. McIntosh, of Indiana, who recently resigned.

DR. FRED S. SHEPPERD, superintendent of schools of Passaic, N. J., was elected president of the New Jersey State Council of Education at its recent meeting in Newark.

DR. HOWARD PILLSBURY, deputy superintendent of education at Buffalo, N. Y., has been elected superintendent of schools at Pelham, N. Y., at a salary of $10,500.

JOHN W. LEWIS, who has been acting director of business management of the public schools of Baltimore, has been appointed permanently to the position at a salary of $5,000 a year. Mr. Lewis will be succeeded in his former position of director of night schools, Americanization and attendance by Principal Martin M. Hihn.

LEWIS COATH has been appointed president, and John A. English, vice-president, of the Chicago School Board, thus giving Mayor Thompson control of the board.

GOVERNOR PAULEN has appointed as members of the Kansas State Board of Education for the two-year term expiring April, 1929, Superintendent C. E. St. John, Arkansas City; County Superintendent Eph Voorhees, Leavenworth County; County Superintendent Olive M. Thompson, Wyandotte County. These members replace on the State Board of Education Superintendent W. S. Heusner, Salina; County Superintendent Ada Smith, Atchison County; County Superintendent Anna Ebeling, Doniphan County, who were appointed as members of the State Board of Education by Governor Paulen in April, 1925.

GOVERNOR FRED W. GREEN, of Michigan, has appointed the following commission to determine how the colleges and normal schools can be brought into closer relationship, with a view to eliminating duplication of courses: Dr. Clarence C. Little, University of Michigan, chairman; President W. O. Hotchkiss, Michigan College of Mines; President K. L. Butterfield, Michigan State College; President D. B. Waldo, Western State Normal School; W. L. Coffey, superintendent of public instruction; Superintendent Frank Cody, Detroit, State Board of Education, and W. H. Sawyer, member of the University Board of Regents.

DR. GUY E. SNAVELY, president of the Birmingham-Southern College, Birmingham, Alabama, was elected president of Kappa Phi Kappa, national educational fraternity, at the fourth annual convention held recently in Gettysburg.

AT the recent annual conference of the National University Extension Association, held at the University of North Carolina, the following officers were elected to serve during next year: *President,* J. A. Moyer, Massachusetts Department of Education; *Vice-president,* A. H. Yoder, University of North Dakota; *Secretary-Treasurer,* W. S. Bittner, Indiana University; *Executive Committee,* C. H. Stumberg, Louisiana State University, and E. H. Lauer, State University of Iowa.

AT the annual meeting of the New England Vocational Guidance Association officers for the coming year were elected as follows: Herbert A. Dallas, *president;* Miss Rebecca Anslow, *treasurer;* Thomas D. Ginn, *secretary;* G. Edgar Folk, Stockton Raymond, Miss Rebecca Anslow and W. E. Wall, *executive committee.*

JOHN I. HILLMAN has been appointed executive secretary of the Idaho State Teachers' Association.

PROFESSOR WALTER S. HUNTER, of Clark University, and Professor Donald A. Laird, of Colgate University, will teach in the department of psychology of the summer session at Northwestern University.

PROFESSOR J. J. B. MORGAN, of Northwestern University, will teach in the department of psychology at Columbia University during the coming summer.

PROFESSOR A. R. GILLILAND, of Northwestern University, will teach in the department of psychology at the University of Oregon during the coming summer.

DURING the fortnight from June 7 to 21, Professor Harry D. Kitson, of Teachers College, Columbia University, will lecture at Kansas State Agricultural College and the Colorado Agricultural College at Fort Collins. Beginning on June 24, he will give a two weeks' intensive training course at the Y. M. C. A. summer school at Lake Geneva, Wisconsin.

DR. GEORGE M. WILEY, assistant commissioner of education of New York State, will give courses in character education and school administration at the O. A. C. summer school.

PROFESSOR BENJAMIN R. ANDREWS, of Teachers College, Columbia University, sailed on May 28 for Europe, where he plans to collect material for a survey of thrift.

PROFESSOR DANIEL DAVID LUCKENBILL, of the department of Semitic languages and literature of the University of Chicago, is seriously ill of typhoid fever in London, where he went to continue his work of producing an Assyrian dictionary at the British Museum.

DR. HENRY F. MUNRO, superintendent of education of the Province of Nova Scotia, sailed from Quebec on May 14 for England. While in Europe Dr. Munro will visit Denmark for the purpose of examining the rural school system of that country. He will also investigate the Danish and Norwegian schemes for afforestation, particularly the manner in which the schools participate in such work. Returning to England he will attend the Imperial Conference on Education which takes place in London from June 30 to July 8.

DR. JAMES L. MCCONAUGHY, president of Wesleyan University, will make the commencement address at Northeastern University on June 20.

PROVOST HENRY S. GRAVES, of Yale University, will give the commencement address on June 11 at the Connecticut Agricultural College.

PROFESSOR C. H. VANTYNE, head of the department of history in the University of Michigan, delivered in May the Watson chair lectures in the Moses Chamber in the House of Lords. The general subject of the course is "British and American Rivalries in the American Revolution." The lectures are arranged by the Sulgrave Manor Board, and Lord Lee of Fareham, chairman of the board, presided. The American Ambassador and Sir George Watson were among those present at the first lecture.

PROFESSOR ALBERT BUSHNELL HART, of Harvard University, dedicated on May 23 a memorial tablet which he recently presented to Wellesley in memory of his wife, Mary Putnam Hart, of the class of 1882. President Ellen F. Pendleton, Dean Edith S. Tufts and several members of the faculty were present at the ceremony, and members of Phi Sigma and Shakespeare Societies were invited to attend, for Mrs. Hart was a member of both societies while at Wellesley.

IT is announced at the University of California that Mrs. Adelina Bunnell Elliott, of the class of 1893, is contemplating the placing of a marble chair in the Greek Theater in memory of her father, the late Professor George Woodbury Bunnell, who served as assistant professor of ancient languages from 1872 to 1875, as professor of Greek languages and literature from 1875 to 1893 and as professor of Greek, emeritus, until his death, January 6, 1926.

EDWARD TWICHELL WARE, president emeritus of Atlanta University, died at the age of fifty-three years at Los Angeles, Calif., on May 19.

DR. ISAAC SAMUEL HARRELL, of the department of history of New York University, Washington Square College, died on May 17.

DR. ERNEST ALBEE, for more than twenty years professor of philosophy at Cornell University, died on May 27. He was sixty-one years old and had been ill for several years.

DR. ALONZO BROWN, founder of the Brown Preparatory School in Philadelphia, which last year celebrated its fifth anniversary, died on May 20, aged seventy-eight years.

THERE were nearly two hundred in attendance at the second annual meeting of the Midwestern Experimental Psychologists, held at Northwestern University on May 13 and 14. On Friday afternoon several speakers contributed to a symposium on the different points of view in psychology and an ideal program

for experimental psychology. Friday evening Dean G. F. Arps, of Ohio State University, spoke on "A Need for a Revision of Experimental Psychology." On Saturday morning a number of prepared papers were presented. These were followed in the afternoon by informal reports from the laboratories represented. On Saturday evening, following a dinner, Professor Harvey Carr, of the University of Chicago, spoke on "Teaching and Learning." A permanent organization was effected to be known as the Midwestern Psychological Association. Professor A. R. Gilliland, of Northwestern University, was elected the first president. The other members of the council are: Professor Clark Hull, of the University of Wisconsin; Professor L. L. Thurstone, of the University of Chicago; Dr. C. N. Rexroad, of the Ohio State University, and Dr. Milton Metfessel, of Iowa State University. Membership is open to members and associates of the American Psychological Association. The meeting next year will be held at Madison, Wisconsin.

THE offices of *The English Journal*, and with them those of the National Council of Teachers of English, are now at 6705 Yale Avenue, Chicago. In 1912 "desk room" was sufficient. Recently the greatly increased correspondence and the shipping facilities needed for the Council "Books for Home Reading," "Plays for Schools and Colleges," "Better Speech Year," and the Clapp Report have crowded a three-room suite. The *Journal's* "Chicago Practice Tests" made larger quarters necessary. Teachers of English visiting Chicago will be welcome at the new offices directly opposite the Normal Park Station of the Rock Island.

WESTERN RESERVE UNIVERSITY has announced the completion of an agreement between the university trustees and the Cleveland Dry Nursery and Free Kindergarten Association, to take over teacher training, and the Cleveland Kindergarten Primary Training School thus becomes a department of the university. Besides training students for nursery schools, for kindergartens and for first three grades, academic credit will be given for work accomplished and teaching certificates upon completion of prescribed courses, and credit allowed towards the degree of bachelor of education for those who wish to supplement their work with further study.

SEEKING to make chapel attendance "a privilege rather than a duty," compulsory features are to be abolished at the University of Chicago for all except entering freshmen.

THE House of the Florida Legislature passed on May 18 an anti-evolution bill making it unlawful to teach in any public school in the state "any theory that denies the existence of God or the divine creation of man," or to teach "in any way atheism or infidelity." The vote was 67 to 24. Violation of the provisions would be a misdemeanor, punishable by a fine of not to exceed $100. The real fight on the bill is expected to develop in the senate.

ANNOUNCEMENT of the discontinuance of the course in "civilian drill," the compulsory alternative to military training which was established last September, has been made at the College of the City of New York. The reason given for the discontinuance is that the hygiene department has reported that its facilities are inadequate to the task of providing accommodation for another freshman group.

SOME thirty students who are working part time while they attend the University of Wisconsin have taken the first steps toward forming a student labor union—the first of its kind in the United States. The students met with Professor Selig Perlman and H. M. Groves, of the department of economics, and William Forrest, of the Madison Federation of Labor. Mr. Groves set forth the purposes of a student labor union as "To increase the bargaining power of student employees, to gather and publish valuable information about the economic conditions of students and to act as spokesman for the student workers."

SPECIAL CORRESPONDENCE

THE OCCUPATIONS OF THE PARENTS OF PENNSYLVANIA STATE COLLEGE STUDENTS

SCHOOL AND SOCIETY has twice published classifications of the occupations of parents of the students in attendance at the Pennsylvania State College, once in 1914 and again in 1925. A similar study has been made for the current academic year. The distribution, in percentages for eight classes of occupations, and for the three years, follows:

Group	Percentage 1914–15	1924–25	1926–27
Industrial	18.04	20.22	20.40
Artisan	17.76	18.21	19.08
Mercantile	21.50	16.63	18.61
Agricultural	17.10	15.80	13.82
Professional	11.49	11.06	11.42
Clerical	5.28	7.24	5.87
Official	3.02	2.98	3.14
Miscellaneous	5.77	7.85	7.63

The twelve leading occupations for each of the three years are as follows:

	1914–15	1924–25	1926–27
(1)	Farmers	Farmers	Farmers
(2)	Storekeepers	Storekeepers	Storekeepers
(3)	Superintendents	Superintendents	Superintendents
(4)	R. R. employees	R.R. employees	R.R. employees
(5)	Manufacturers	Laborers	Contractors
(6)	Salesmen	Salesmen	Salesmen
(7)	Physicians	Clerks	Miners
(8)	Contractors	Manufacturers	Laborers
(9)	Carpenters	Physicians	Manufacturers
(10)	Lawyers	Carpenters	Physicians
(11)	Ministers	Contractors	Engineers
(12)	Clerks	Machinists	Clerks

The "industrial" group shows an increase of over 2 per cent. during the twelve-year period, a rather large increase, since numerically 2 per cent. of the present enrollment is the equivalent of a group of over seventy persons. No other group shows such a marked growth, although the "artisans" have increased 1.32 per cent. The "agricultural" group shows a decided decrease, changing from over 17 per cent. to less than 14, an actual loss of 3.28 per cent. If the group had maintained the same level as it occupied in 1914, there would be 633 sons and daughters of farmers and other agriculturists now attending The Pennsylvania State College instead of the 471 actually in attendance.

The only other group to show a decrease is the "mercantile" group, which dropped 2.89 per cent. The loss in these latter two groups, 6.17 per cent., is nearly equalled by the increase in the "industrial" and "artisan" groups, 3.68 per cent., plus the increase in the miscellaneous group, 1.96 per cent., or 5.64 per cent.

The changes, with the exception of that within the "agricultural" group, show a marked increase in the attendance of students whose parents have occupations in the "ordinary" walks of life.

WILLIAM S. HOFFMAN
THE PENNSYLVANIA STATE COLLEGE

DISCUSSION

LIKE PEAS IN A POD[1]

"Go to the pea, thou sluggard, for it hath much of wisdom in its pod!" was neither Solomon nor Shakespeare, but just a lowly student after he had been "mentally gassed" by a homely illustration of a table variety. "As like as two peas in a pod" may offer food also for thought. But more of this later.

Teachers themselves, when "taking" summer courses, feel impelled many times to "write back" asking that their "C" be made a B or A, as "C" means only fair and they "have always been A or B students"! For many years this professor has been pursuing mighty poor pedagogy and violating egregiously "our instruction must relate school work to life"; "the experiences of the pupil must be made use of"; "from the concrete to the abstract," et cetera. He had worn Matthew 25: 15 to a frazzle before he found that there are quite a lot of truisms in the great Book of Books which students do not bank much on. About three ten-hour days were wasted of the new-coming forty-hour week after the first mid-term and the second mid-term and the third mid-term and the other "mid-terms" tediously explaining to neophytic A B's that after all Matthew knew what he was talking about and that long before "standardized" or "objective" tests were the vogue. The theoretic, abstract method of "listen to what I say" injunction concerning "some with ten talents and some with one" simply does not set, it refuses to take hold, the patients are immune.

A bright idea occurred from the kitchen laboratory! For something less than one ninety-

[1] Dedicated, with feeling, to conscientious professors who attempt to convince students that some are not "A's."

eight just fifty-four pea pods were lugged from market and prepared for the electric range with the following scores for "peaness":

Number of peas	Pods
1	1
2	4
3	6
4	5
5	16
6	8
7	10
8	3
9	1
10	0
Total	54 pods

Why not quit quoting the Bible and let the pea pods convince the student? Why not "couple up the materials of daily life" with the "school work"?

In the meantime, to better Sherlock Holmes the job, the instructor saw to it that, during the first week of his classes for the term, a six-word spelling test, a silent reading test and a memory recall test for a dictated unrelated word list of ten words were set and scores obtained. And then the day came for trying out the new toy, the "true-false" test, the old, much maligned, "who, when, where" style of examination of a few years ago! Ten true and ten false exercises were posted and eight minutes allowed. The score formula, to obviate the 50–50 guessing element, was "rights minus wrongs," disregarding omissions. The following table was entered on the right side of the classroom board (the table for peas above on the left):

TRUE-FALSE TEST

Score	Frequency
0 and 1	1
2 and 3	0
4	1
6	4
8	9
10	9
12	14
14	16
16	16
18	3
20	0
Total	73 students

The results in memory recall, spelling and silent reading were entered between the two above tables:

Memory recall		Spelling	
Words	Frequency	Words correct	Frequency
4	1	0	6
5	1	1	21
6	2	2	19
7	19	3	14
8	24	4	8
9	23	5	4
10	3	6	1
Total	73 students	Total	73 students

MONROE SILENT READING TEST III—FORM 2

Rate		Comprehension	
Score	Number	Score	Number
141 – 150	16	60 – 69.9	4
131 – 140	17	50 – 59.9	18
121 – 130	16	45 – 49.9	8
X		40 – 44.9	13
106 – 110	17	35 – 39.9	12
X		30 – 34.9	6
86 – 90	5	27 – 29.9	4
Total	71 students	24 – 26.9	4
		21 – 23.9	2
		Total	71 students

A combination of the "Socratic and heuristic," as well as the lecture, method was followed from here on.

"What does the first table tell us?"

"The first table is about peas."

"Is there any suggestion about the 57 varieties?"

"Yes, one pod had only one pea in it, while sixteen had five peas and four had eight or nine."

"Who is responsible for peas in pods?"

"God and Luther Burbank."

"Well, since you mention Burbank, where would he likely throw the first five or ten pods if he were to judge of their work in producing peas?"

"They would probably go in the dump."

"I wish the class would 'hold' that 'dump' metaphor for awhile—You will recall a spelling test, the first day or two of the term? Take out your pencil—each one spell his first name. Did any one spell it incorrectly?" The class admitted that no one had done so.

"Spell 'Syzygy' (a term used in astronomy).

When I write the word on the board raise hands for those who spelled it correctly." (No hands.)

"What is your judgment about the second method of testing spelling ability?" The class was unanimously of the opinion that it was entirely too difficult.

"What do you think of the first method?"

There was about the same unanimity that it was a first-rate method, as by the following: "We could make some decent grades"; "We wouldn't have to work much"; "We could have time for our activities," etc.

"What do you think about a test in which all either make a perfect score or nothing?" The consensus of opinion was that a test to be a fair test should be somewhere between "too easy" and "too hard." The instructor continued: "Just so. Any course worthy of giving or worthy of taking should be on such a plane of dignity and difficulty that the strongest and most capable student will be taxed. If this criterion is set, the Creator has done for us just what He has done for peas in pods."

The distribution of scores in the true-false test was "developed" in the same manner as the illustration of the peas when this question was asked:

"Well, Professor, what do you consider a satisfactory score in this true-false test?"

"I do not know. Nor am I concerned primarily in *just what* constitutes a 'satisfactory score.' Let me ask you—What do you consider a satisfactory pod of peas?" The student confessed that this might be somewhat relative.

"If, however, you should ask me *how grades* might be accorded on such a test, I should be compelled to follow the same rule that Burbank would follow with peas. The three or four pods at the top would take the blue ribbon; the three students with an eighteen score (nineteen rights) would be the 'cum laudas.' The four or five pods at the bottom would have to go 'into the dump'; the four or five students with no or little scores would have to ask themselves why they were 'taking the course' and as about five peas seemed to be the average for a pod, so would the thirty-nine students at the ten, twelve and fourteen scores be accorded the C's."

Moral: Since the above exercise was set the questions regarding "my grade" have very perceptibly fallen off.

In all the above, the writer by no manner of means wishes to convey the impression that memoriter type tests are in his judgment the "distribution" and that Some One Else besides best tests. The purpose primarily was to show Luther Burbank has had a hand in fashioning "grades."

CYRUS D. MEAD
UNIVERSITY OF CALIFORNIA

QUOTATIONS

THE GROWTH OF PUBLIC PLAYGROUNDS

WHILE statistics are generally dull and often repellent, some figures because of the story they tell are positively eloquent. Of this latter kind are those given in the 1926 Year Book of the Playground and Recreation Association of America just issued, its publication being most timely now with the beginning of outdoor recreation activities near at hand.

The revelations that these figures give of the rapid growth of the playground movement and of the wide increase in the variety of recreational activities in American cities are astonishing. If one keeps in thought the manifold benefits of these outdoor play fields directly to the youth of the land and indirectly to the whole people, the figures become vividly illuminating and uplifting. Here are some of them:

In 1926, 758 cities spent for public recreation $19,202,123.

The teams of young men and boys which played league games in baseball, playground ball, football, soccer, basketball, quoits, volley ball, bowling and miscellaneous games numbered 48,000. In 1925 there were 37,000 teams, in 1924 only 33,000.

The leagues that took part in these games totaled 7,216, the players who were in these leagues 632,350 and the spectators who saw the games 22,000,000.

The total of 790 cities reported organized recreation. There were only 748 of these cities in 1925.

Separate recreation areas to the total of 10,123 are reported for 1926, a gain of 1,515 over 1925.

Tennis courts in 1926 numbered 6,254, a gain over the year before of one court a day.

New playgrounds to the number of 558 and 158 baseball fields were laid out in outlying city districts to make up for the decrease in vacant city lots.

The gain in trained leadership, an important feature of playground management, has been particularly striking in recent years. In 1921 the cities that had all-year leadership numbered 191. In 1926 the number had arisen to 343. Including summer workers, the persons employed on playgrounds in 1926 numbered 17,090 in 758 cities. In 1926 there were 5,073 employed workers enrolled in training classes. In 1921 there were only 1,580.

The sum of $19,202,123 is a large one, even in these days of enormous expenditures. Yet, when it is realized that the use of these millions of dollars enabled 632,350 youths to engage in clean outdoor sports under proper supervision and with rules of fair play governing the competitions, the investment will seem to be a wise one. The value of the sports thus provided is beyond all computation to the young folk who engage in them. The smaller children who use the playgrounds are kept from the streets and thus removed from the growing dangers from motor traffic as well as from influences to which they should not be subjected. The older youths reap the values that come from exercise in the open air under the spur of competition, with training in skill and alertness and with constant reminders of the absolute necessity of fair play in all their contests.

Who can measure the return in value from the money spent to the parents and friends of the players, who form the vast army of spectators of the games disclosed in the Year Book reports? The 22,000,000 who in 1926 watched the friendly competitions on the playgrounds scattered all over the country numbered more than all the people in the great state of New York and New England with a state or two added. The beneficial influences of the games on this huge number of watchers is not confined to the moments of the competitions but extends to the preparations for them and to the turning of attention and interest away from less advantageous things. Indeed, all the aspects of the growth of the public playground movement are encouraging for the country's future.—*The Christian Science Monitor.*

REPORTS

REPORT OF THE COMMITTEE ON THE COOPERATION OF SCHOOLS AND MUSEUMS

A JOINT committee on school-museum relations, appointed by the National Education Association and The American Association of Museums to make plans for better cooperation between the schools and museums of our country, has drafted the following recommendations. They have been adopted by both the National Education Association and The American Association of Museums in their annual meeting.

1. The schools and the museums should cooperate to enrich progressively the intellectual, cultural and emotional life of the people.

2. Such enrichment will come to the individual as the result of experiences with Nature at first hand, with works of art, with museum specimens and with other original objects having human interest.

3. The schools should lead in placing emphasis on nature study in the great outdoor museum, where everything is alive. To promote such activity provision should be made for generous school gardens, for public parks within walking distance of every school building, and for free transportation to some observational area.

4. These primary experiences should be supplemented by contact with the material gathered in museums of science, art, history and industry, whose contents should be placed freely at the service of the public schools.

5. The schools should make use of this material to the fullest possible extent.

6. To promote such mutual service, normal schools and teachers' colleges should train their students in observation and exposition, through excursions into the open, and trips to the museums, and give them systematic training in using museum materials.

7. The expenses of providing the materials, required for observation and for circulating and keeping in proper condition the traveling materials, should be shared between the museums and the boards of education, upon some mutually satisfactory basis.

8. A representative of the schools should be selected to cooperate with the supervisors and teachers and with the museum authorities in select-

ing the loan material. He should also be charged with the responsibility of assembling, caring for and circulating from a distributing center all the material supplied by the museums.

9. Circulating material should not be considered as an adequate substitute for occasional visits to the central museums. Pupils should visit museums to receive instruction in subjects to be illustrated by materials which can not be put in circulation and to become acquainted with the great educational institutions other than their schools.

10. Wherever public museums are not established, steps should be taken to open school museums or children's museums.

10-b. Wherever this can not be done, local, county, or state school boards should provide for carrying on visual education by the best available means.

11. At the present time, available material for visual education throughout the United States is inadequate. The joint committee of the National Education Association and The American Association of Museums should be instructed to secure the cooperation of the museums and of American publishing houses to supply as much as they can of what the schools need.

Some of the material may be summarized briefly as follows:

(a) Actual objects, such as mammals, birds, insects, specimens of sea life, food products, tree products, materials for clothing, materials for shelter, raw materials in the different stages of manufacture, etc., actual specimens from the fields of biology, geology, mineralogy, botany, anthropology and the other various branches of science.

(b) Lists of available educational films and slides showing growing and moving things, historical events, and industrial processes, in short, the activities of nature and men.

(c) Facsimile reproductions of historical documents, pictures and objects in the historical museums of the country, of special value in the teaching of American history and literature.

(d) Reproductions in color of the finest pictures, textiles and other decorative material in American museums.

(e) Reprints of illustrations in black and white and color from the best work of artists modern and ancient.

(f) Photographs of the finest sculpture, the finest architecture, and the finest handicraft produced in the United States and in other countries.

(g) Reproductions in color of the finest mural decorations in American buildings, and elsewhere.

(h) Illustrations of the finest products of American industry.

(i) Pamphlets made up of sample pages of the finest work of American designers and printers.

(j) Photographs and reproductions in color of objects in Natural History Museums having unusual cultural values.

(k) Illustrated pamphlets descriptive of the scenery, institutions, occupations, and resources of cities and countries, such as are published by boards of trade.

12. A joint committee of The American Association of Museums and of the National Education Association should be appointed to secure a prominent place for the discussion of visual education upon the program of every county, state and national gathering of public school teachers and museum workers.

13. Representatives of The American Association of Museums and of the National Education Association should endeavor to secure the appointment of local committees in every school district in the United States to promote an interest in visual education, and to secure means for its development.

JOINT COMMITTEE ON SCHOOL MUSEUM RELATIONS

Henry Turner Bailey, Chairman, Director, Cleveland School of Art.

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Miss Anna B. Gallup, Curator, Children's Museum, Brooklyn, N. Y.

Mr. Henry W. Kent, Secretary, The Metropolitan Museum of Art, New York.

Mr. H. L. Madison, Curator of Education, The Cleveland Museum of Natural History.

Mr. J. Arthur MacLean, Curator of Oriental Art, Toledo, Ohio.

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EDUCATIONAL RESEARCH AND STATISTICS

A COMPARISON OF TWO METHODS OF COLLEGE INSTRUCTION[1]

THIS study was undertaken to determine measurable differences of achievement in elementary psychology as a result of two different methods of instruction, the lecture-conference method and the "individualized" method, which were conducted at the State University of Iowa during the academic year 1925–26. The details of the respective methods differed radically in many respects. The degree of control extended to the following factors:

(1) Each method was used to give instruction for a six semester hour course extending over the same period of time, one academic year.
(2) The same libraries, laboratories and general equipment were available.
(3) Throughout the year the instructors of each method were unaware of the fact that the results of their teachings would be compared. Normal conditions, rather than a spirit of competitive rivalry, were thus maintained.
(4) The aim of the methods was common.
(5) The course content of each method was selected from the same general field with a view of best developing the common aim. The same basic texts were used.
(6) In this study students of comparable scholastic ability were selected to represent each method.
(7) An objective test, constructed by a disinterested authority in the field, was submitted to the students of each method.
(8) The conditions under which the test was given were uniform.

Scores made on an objective test over the general field of elementary psychology were accepted as the criterion for achievement in psychology. The differences in scores made by comparable students of the two methods of instruction were accepted as the criterion of differences in achievement as a result of the two methods.

Since there is no consensus of authoritative opinion in regard to whether ratings in competitive intelligence tests or class grades is the better index of scholastic ability of a student, the selection of comparable students representing each method of instruction was made in three ways, by pairing students of the two methods on the basis of (1) grade points made during the first collegiate year; (2) comparable percentile rankings attained in the freshman entrance examinations, and (3) combined percentile rankings and grade points when converted into comparable scores.

The grade points forming a basis for selecting students of comparable scholastic ability were those customarily awarded by the State University of Iowa for class grades. The number of points granted for each semester grade are as follows:

A	4 points	Incomplete	0 point
B	3 points	Conditioned	−1 point
C	2 points	Failed	−2 points
D	1 point		

The freshman entrance examination as given at the State University of Iowa included "Thorndike's intelligence examination for high-school graduates," Part I, Form B, the "Iowa comprehension test," D-2, and the "Iowa high-school content examination," Form B.

The psychological test[2] used to obtain the criterional scores was entirely objective. Its validity was based on the authority of the deviser of the test. The statistical reliability of the test was computed by the Pearson-product-moment method of correlation[3] combined with the application of Browns formula.[4] The coefficient of reliability was found to be .7204. This coefficient could be raised to .90 by lengthening the test to about three times the number of items.

The test was included in the final examination

[1] This study was directed by F. B. Knight, State University of Iowa. J. E. Bathurst, of the Bureau of Public Personnel Administration, Washington, D. C., directed the statistical treatment of the data.

[2] Devised by H. H. Remmers, Purdue University.

[3] Rugg, H. O., "Statistical Methods applied to Education," Houghton, Mifflin Co., 1917, p. 219.

[4] Garrett, H. E., "Statistics in Psychology and Education," Longmans, Green & Co., 1926, p. 269.

form given to the students at the end of the second semester. The pages comprising the test under experimentation were separated from the complete form at the end of the examination and graded. A comparison and interpretation of the grades made by the students representing the two methods of instruction was then made.

A DESCRIPTION OF THE TWO METHODS OF INSTRUCTION THAT WERE COMPARED IN THIS STUDY

The Lecture-Conference Method Instruction

The regular classes in elementary psychology at the State University of Iowa were conducted by the lecture-conference method. The primary aim of the course, as established by the head of the department of philosophy and psychology, was to train the student in the observation and explanation of mental facts. The course content material, consisting of lectures, individual experiments, class demonstrations, required readings, as well as suggestions for optional readings, was selected with the view of enabling the individual student to realize this aim as effectively and as economically as possible. The work of the year was divided into six weeks' periods. At the beginning of each six weeks the students were given mimeographed sheets announcing the lectures, the required preparations and the suggested readings for the particular period.

In accordance with the lecture-conference plan the students, numbering approximately five hundred, met twice each week in a large auditorium for a one-hour lecture, which was customarily delivered by the regular staff lecturer. Lectures by specialists were interspersed when the course material extended to specialized fields.

Once each week the students, sectioned into groups of twenty to twenty-five each, met for conference over the work covered during the week. The method of conducting these hours varied with the particular group personnel, but in general it maintained the commonly accepted techniques of the class-discussion or class-recitation. The students were required to make a two-hour preparation for the lectures and for the conference periods, to outline the readings and to take notes on the lectures. Individual experiments were assigned freely as required preparations and class demonstrations often supplemented the lectures. Written exercises and reports on experiments, when included in the work of the week, were submitted to the instructors in charge of the conferences, who checked and returned them to the students.

The sectioning of the students for the conference groups was based on the ability of the students as predicted by their percentile rankings in the freshman entrance examination and by the grades made during their first collegiate year. Three levels of ability were recognized, which were commonly designated as the *high*, the *middle* and the *low* sections. The original sectioning was tentative and subject to readjustment on the basis of achievement at the end of each six weeks' period throughout the school year. As far as was administratively possible the three levels of sections were conducted at the same hours, thus giving complete flexibility for sectional readjustment at any time without involving a conflict with any student's regular schedule of courses.

At the end of each six weeks the students were tested objectively over the work covered in the particular period and at the end of each semester an examination over the work of the entire semester was given.

The Individualized Method of Instruction

The outstanding features of the individualized method were the provisions for directing study, for supervising study and for offering the individual student opportunity to receive help compatible with his particular needs. Compulsory lecture attendance and customary recitations were eliminated in this method.

A large room, equipped with tables and chairs, apparatus for experimentation and a well-stocked library, was kept open from eight to twelve three days each week. Each student was required to study in this room for two hours at each scheduled meeting of the class.

The work of the year was divided into units of approximately one month each. At the beginning of each month, the student was given an outline for the work of that unit. This material included references to the required readings, to additional suggested readings, and a skeletal outline of the required reading desig-

nating the major points and showing the relationship of subsidiary points. The outlines were intended to direct the student in his study. With the assignment of the work at hand each student was allowed to work at his own rate and to some extent, according to his own interests. He was privileged to move about the room, to speak to classmates, to ask questions of the instructor in charge and to go to departmental libraries for reference work. For more detailed explanations and discussions on any topic he was permitted to attend voluntary conferences that were conducted in an adjoining room during the study periods.

The student entered into informal conversation with the instructor and the instructor sought out the individual student to give encouragement and guidance. Work habits of the students were studied and suggestions for improvements were made when possible. Although great freedom was given to the students in apportioning their time, dawdling study habits were rigorously prohibited. Habits of unnecessarily detailed note-taking, inexcusably long "warming up" periods, dissipation of effort, readiness to attend to distractions, general restlessness and endless other habits of inefficiency were checked by the instructor and the students were held to a strenuous program of concentrated study for the full two hours of each scheduled meeting of the class.

Each student worked independently. The superior student was not held in leash or hindered by an inferior student. The slow student was allowed to proceed at his own rate with the amount of guidance necessary in his particular case. He was not required to keep a pace beyond his ability. When a student was ready to perform an experiment he procured the necessary apparatus and proceeded. He usually compared his results with those of his classmates. Divergent conclusions frequently resulted in a repetition of the experimentation for verification.

Two or three demonstrations of experiments requiring special apparatus were made by the instructor before the class as a whole. At all other times, after a few preliminary remarks made on the opening day, the instructor refrained from addressing the class. Necessary announcements were made on a blackboard. Objective examinations were given at the end of each month and at the end of each semester. All preparations for the materialization of this method as well as changes in the experimental development of the method were directed toward making the individual rather than the class the educative unit.

Since the technique of the individualized method was directed toward realizing the aim of the course, a measurement of the results might be considered a measurement of the technique, and a comparison of the results of the individualized method with the results of the lecture-conference method might be considered a measure of the relative effectiveness of the two methods.

INTERPRETATION OF RESULTS

The following table gives a schematic presentation of the mean scores on the psychology test for the two methods of instruction:

Paired on basis of	Lecture-conference mean scores	Individualized mean scores	Difference in mean scores	$P.E._d$	P.E.'s
Grade points	66.67	67.08	.41	.826	.469
Percentile rankings	57.03	66.92	9.89	.755	.145
Combined grade points percentile rankings	65.73	67.46	1.73	.687	2.519

In not any of the three cases are the probable error units significant. This may be interpreted as showing that as far as the mean psychology test scores of the lecture-conference and of the individualized method of instruction are concerned, if differences in the relative effectiveness of the two methods do exist they exist in such small amounts that this particular study is unable to find them.

The conclusion that these two methods of instruction are of equal effectiveness in teaching elementary psychology seems to be warranted by the results of this experiment.

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